



St Marks NWR
Treatment Plan
Fourth Order Fresnel Lens



Background:

Ownership of the historic St Marks Light and Classical Fresnel lens located on St Marks National Wildlife Refuge in St. Marks, Florida was officially transferred to the U.S. Fish and Wildlife Service on 11 September 2013.

Listed on the National Register of Historical Places, responsibility for maintenance and continued upkeep commensurate with the structures listing was assumed by the USFWS.

Working in cooperation with the St. Marks Refuge Association, long established non-profit refuge support group, the Florida Lighthouse Association and the local community, a comprehensive Preservation Treatment Plan and enabling capital fund raising campaign is being developed.

As a first step, a structural condition assessment was commissioned from Kenneth Smith Architects Inc. of Jacksonville, Fl. and Atlantic Engineering Services Inc. who specializes in historic preservation projects. Completed on 28 April 2014, the condition assessment identified numerous deficiencies in the tower's lantern room requiring extensive preservation and some component restoration work to be performed. (See attachment #1)

Valued at \$ 150,000.00, all parties involved are in agreement that leaving the historically significant Fresnel lens in place presents an unacceptable risk, the Fresnel lens should be removed during the preservation period and this opportunity be used to stabilize, preserve and or restore the lens.

A search was conducted to find a qualified lampists, with sufficient credentials and experience required to perform the preservation work. Due to the unique skill sets required, options are severely limited.

Contact was made with the Ponce de Leon Inlet Lighthouse Preservation Association, a non-profit group specializing in Fresnel lens preservation and restoration. A site visit was arranged on June 17th and 18th 2014 to assess the lens' condition, valuation, treatment options in regards to the intended use after the building preservation is completed and develop a treatment plan. (See attachment #2)

As outlined in the Ponce de Leon Inlet Lighthouse Preservation Association assessment, the lens was determined to be in relatively good condition. An exhaustive search of all available keepers logs and historical documentation obtained from the USCG. has revealed no evidence of any periodic or routine lens maintenance in the past.

Upon approval, St Marks NWR will work with Ponce de Leon Inlet Lighthouse Preservation Association to effect the removal and preservation of the lens.

As the Ponce de Leon Inlet Lighthouse Preservation Association is a non-profit organization, labor associated with the preservation will be free of charge. St Marks NWR and the SMRA will provide financial support as needed in the removal, acquisition of materials needed for preservation/restoration and disposition of the lens pending completion of the building preservation.

Project Work Description

Location:

St Marks Light is located at the mouth of the St. Marks River at Appalachee Bay near the town of St. Marks in Wakulla County, Florida. The Lighthouse is on the grounds of the St. Marks National Wildlife Refuge managed by the U.S. Fish and Wildlife Service. The light is located at 30 degrees 4.3' North and 84 degrees 10.8" West.

Project Scope:

The proposed project calls for general preservation of the classical fourth order Fresnel lens. The preservation will ensure stability of the lens as well as protect it from further deterioration. All repairs will be made in accordance with the Secretary of the Interior's Standards for Rehabilitation (36 CFR 67) and the Historic Lighthouse Preservation Handbook of 1997 as applicable.

Repair Items:

1. Classical Fourth Order Fresnel Lens stabilization and preservation.

Treatment:

Phase I – Removal

- A wooden crate with foam padding will be constructed in the refuge' wood shop to house the lens during the removal and transport process. It has been determined that the lens should not be disassembled prior to the move. The size of the lens will not allow it to be moved through any of the door openings in the lantern and thus has to be taken out one of the window openings. This will require the removal of one of the fixed window panes on the North side of the lantern. The existing glass pane is broken

and will be replaced with tempered glass of the same specifications recommended in the lantern preservation section of the Kenneth Smith Assessment. All activities will be coordinated and overseen by the Ponce Inlet personnel.

- A 125' man lift will be rented to facilitate the transfer of the crated lens from the lantern to the ground. A manlift will provide a stable platform and greatly reduce risk.

Phase II – Transport to the Ponce Inlet Facility

- Crated lens will be loaded into an enclosed vehicle and transported to Ponce Inlet by three vehicle convoy during non-peak traffic hours.
- Transfer of artifact for preservation procedure will be in accordance with DOI policy as outlined in 411 DM.

Phase III – Preservation

- See attachment #2

Phase IV – Transport from Ponce Inlet to Refuge and temporary public display.

- Crated lens will be transported from Ponce Inlet facility to the Refuge in an enclosed vehicle by 3 vehicle convoy during non-peak traffic hours.

Phase V – Display in Refuge Visitor Center

- A lockable plexiglass case will be constructed to house the lens for public display. The Visitor Center provides a climate controlled, secure environment consistent with the recommendations found in "*Guidelines on the Care and Maintenance of Historic Classical Fresnel Lenses*" published by the USCG Curator.